

Government of Alberta ■

Advanced Education and Technology

2009-12

Ministry Business Plan

Alberta ■

Freedom To Create. Spirit To Achieve.

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Advanced Education and Technology

BUSINESS PLAN 2009-12

ACCOUNTABILITY STATEMENT

The business plan for the three years commencing April 1, 2009 was prepared under my direction in accordance with the *Government Accountability Act* and the government's accounting policies. All of the government's policy decisions as of March 12, 2009 with material economic or fiscal implications of which I am aware have been considered in preparing the business plan.

The Ministry's priorities outlined in the business plan were developed in the context of the government's business and fiscal plans. I am committed to achieving the planned results laid out in this business plan.



Doug Horner, *Minister of Advanced Education and Technology*
March 19, 2009

THE MINISTRY

The Ministry of Advanced Education and Technology consists of the following entities for budget purposes: Department of Advanced Education and Technology, the Access to the Future Fund, Alberta Enterprise Corporation, Alberta Research Council Inc., and iCORE Inc.

The following councils, boards, and authorities provide policies, guidelines and advice to the Minister: the Alberta Council on Admissions and Transfer, the Alberta Apprenticeship and Industry Training Board, the Campus Alberta Quality Council, the Students Finance Board, the Access Advisory Council, and the Alberta Science and Research Authority and its associated institutes including: Alberta Life Sciences Institute, Alberta Agricultural Research Institute, Alberta Forestry Research Institute, Alberta Energy Research Institute, and Alberta Information and Communications Technology Institute.

The Minister also has responsibility for legislation pertaining to the Alberta Heritage Foundation for Medical Research and the Alberta Heritage Foundation for Science and Engineering Research (operating under the trade name Alberta Ingenuity).

Achieving the Ministry's goals involves the work and coordination of many organizations, institutions and boards all working towards a shared vision of Alberta's advanced learning and innovation system.

Alberta's advanced learning system is composed of public board-governed institutions, the apprenticeship and industry training system, community consortia, private providers and community-based organizations. In collaboration with the advanced learning system, industry, communities, government agencies and non-governmental organizations, Advanced Education and Technology strives to create accessible, affordable and quality learning opportunities that are responsive to the ongoing learning needs of Albertans.

Alberta's innovation system, which includes government working collaboratively with industry and academia, strives to develop and implement innovation policies, practices and programs that are critical for Alberta if it is to sustain and enhance current levels of prosperity and quality of life over the longer term. The Ministry cooperates with key innovation support agencies to foster support for research, commercialization and innovation activities across the province.

VISION

Alberta prospers through innovation and lifelong learning.

MISSION

Advanced Education and Technology provides strategic leadership for the development of the next generation economy in Alberta through the provision of accessible, affordable and quality learning opportunities for all Albertans and support for a dynamic and integrated innovation system.

Advanced Education and Technology supports the Government of Alberta's vision to build an innovative and prosperous province where Albertans enjoy a high quality of life built on vibrant communities and a healthy environment.

LINK TO THE GOVERNMENT OF ALBERTA STRATEGIC BUSINESS PLAN

Advanced Education and Technology ensures that its strategic priorities, goals, outcomes and strategies support the Government's goals and priorities as set out in the *Government of Alberta Strategic Business Plan*. The following summarizes the key linkages between the Ministry and the Government of Alberta goals and priorities.

Goal 1: Alberta will have a prosperous economy.

Ministry Support for Goal 1

- Continue to implement the Roles and Mandates Framework for publicly funded organizations that support world class research and innovation in Alberta.
- Work with the Ministry of Finance and Enterprise to review existing economic and fiscal policy and develop direction, principles, priorities and tools to effectively and efficiently address medium-term investment, economic and fiscal issues.
- Continue to encourage technology commercialization and increase the Canadian venture capital invested in Alberta through the implementation of *Alberta's Action Plan: Bringing Technology to Market*.

- Develop, attract, and retain highly qualified scientific personnel and entrepreneurs in Alberta.
- Support the Ministry of Employment and Immigration in developing a detailed human capital plan that will advise government on how to invest in the labour force over the next 20 years.

Goal 2: Albertans will be well prepared for lifelong learning.

Ministry Support for Goal 2

- Continue to implement the Roles and Mandates Framework for the advanced education system.
- Respond to demand for post-secondary system access through the priorities established in the Alberta Access Planning Framework.
- Enhance parents' and learners' knowledge and awareness of Alberta's advanced learning system, planning tools, and financial support options through a collaborative raising-awareness program.
- Strategically review Alberta's student loans, grants and debt management program, in light of federal policy changes, to ensure they continue to meet the needs of Alberta learners.
- Develop innovative approaches to increase the participation of Aboriginal, immigrant and other under-represented groups in literacy and other learning opportunities.

Government Priorities

Lead the following Government priority:

- *Enhance value-added activity, increase innovation, and build a skilled workforce to improve the long-run sustainability of Alberta's economy.*

SIGNIFICANT OPPORTUNITIES AND CHALLENGES

Alberta's continued economic prosperity and social well-being is increasingly dependent on the further development of a next generation, knowledge economy, which is founded on innovation and human capital. As Alberta continues to transition to a knowledge economy, the province and Advanced Education and Technology face some key challenges and opportunities for achieving the goals of the Ministry and the Government of Alberta.

Staying Competitive in a Global Environment

The next generation economy requires Alberta to be globally competitive in developing, attracting and retaining knowledgeable workers, researchers and innovators; and developing diverse economic areas of expertise. In order to ensure Alberta's continued competitive advantage, strong collaboration and partnerships are required between government, industry, publicly-funded institutions and organizations, and local communities. Within this context, the Department has the opportunity to maintain and further support accessible, affordable, quality learning opportunities, and support research and innovation in key areas that are vital to our economy and the well-being of Alberta and its citizens. Alberta is continually challenged to align and integrate its advanced learning and innovation systems to maximize their capacity and recognize the critical role they play in developing our citizens and our economy.

Developing, Attracting, and Retaining Knowledgeable and Educated Citizens

In the next generation economy, approximately 60 per cent of jobs and careers will require a post-secondary education. As such, Alberta must be positioned to leverage the capacity of all Albertans, including those currently under-represented in the advanced learning system and labour-market, by providing access to quality and affordable advanced learning opportunities and services. Developing and maximizing the potential of working-age Albertans is important given demographic shifts, resulting in the retirement of many experienced employees and critical labour-market shortages.

Potential learners have until recently been drawn away from the education system and into the labour-market due to Alberta's strong economic growth and abundant job opportunities. This has posed a challenge for Alberta's ability to produce highly qualified people to meet the needs of the current and next generation economy. The current economic slowdown may encourage more students to stay in school and may cause those who had previously left the learning system to return to part-time or full-time learning. Positioning the system to be responsive to these learners' demands for flexible learning opportunities and multiple learner pathways will be a significant challenge.

Alberta cannot satisfy economic demands for knowledgeable and educated citizens through our local population alone; hence, we have become increasingly reliant on international immigration and interprovincial migration. While global competition for knowledge workers is strong, the province has the opportunity to develop successful attraction and retention strategies to ensure that highly qualified people move to and stay in Alberta. This will require educational services to support new immigrants and integrate them into Alberta's society and economy, and further development of a vibrant culture and communities.

Supporting Research and Innovation within a Diversified and Value-added Economy

Alberta's wealth and economic vitality has been largely created through our strong primary industries. While such industries will remain important within a global, knowledge-based economy, primary industries are susceptible to demand-side shocks such as those posed by the current world-wide economic slowdown. In light of this, the province continues to be challenged to diversify through engagement in more value-added processes and sectors. Such economic development is necessary to enhance long-term economic well-being, and ensure that our economy is more robust and capable of managing challenges in any single sector. Economic diversification and continued development of value-added processes will require highly qualified people, as well as support for research and innovation activities. Entrepreneurs must also be developed, supported, and retained since they are vital to the successful development and commercialization of new products and ideas. Research and innovation will need to be encouraged within a collaborative and integrated network that spans across government, the advanced learning and innovation system, and industry. To support innovation and economic development, an opportunity exists for the province to provide greater access to venture capital, support for early-stage development activities, and a standardized approach to addressing intellectual property. Additionally, Alberta's research and innovation capacity should continue to support Albertans' quality of life by addressing social, health, and environmental issues.

STRATEGIC PRIORITIES 2009-12

The Ministry provides strategic leadership to the advanced learning and innovation system. The strategic priorities described below have been identified through the Ministry's review of environmental factors. These are in addition to the important ongoing core activities of the Ministry.

CREATING AND PROTECTING OUR OPPORTUNITIES

1. Next generation economy

Alberta seeks to develop the capacity and capabilities within the province to enhance economic growth and build the next generation economy.

A specific initiative for the Ministry will be to:

Linkage: Goal 4

- Work with the Minister of Finance and Enterprise to review existing economic and fiscal policy and develop direction, principles, priorities and tools to effectively and efficiently address medium-term investment, economic and fiscal issues.

2. **System alignment and sustainability**

Linkage:
Goals 1, 2 and 3

Alberta's advanced learning and innovation system can serve as a powerful instrument to enhance the quality of life in the province, support economic growth, and increase knowledge and skills to support future discoveries. A specific initiative for the Ministry will be to:
 - Continue to implement the Roles and Mandates Frameworks for the advanced education system and for publicly funded organizations that support world class research and innovation in Alberta.

3. **Technology commercialization**

Linkage: Goal 4

A diverse, innovative, productive, and knowledge-based economy will form the basis for Alberta's future economic growth and prosperity. Diversification of Alberta's economy will require strategies to attract, develop, grow and retain successful and innovative knowledge-based companies. A specific initiative for the Ministry will be to:
 - Continue to encourage technology commercialization and increase the Canadian venture capital invested in Alberta through the implementation of *Alberta's Action Plan: Bringing Technology to Market*.

4. **An affordable learning system**

Linkage: Goal 2

Ensuring that Albertans have access to learning opportunities requires that opportunities are affordable to learners and their families. A specific initiative for the Ministry will be to:
 - Review Alberta's student loans, grants and debt management program, in light of federal policy changes, to ensure they continue to meet the needs of Alberta learners.

CORE BUSINESSES, GOALS, STRATEGIES & PERFORMANCE MEASURES

Advanced Education and Technology has identified three core businesses that describe the ongoing key responsibilities of the Ministry. Under these core businesses are goals with specific outcomes that describe the end results the Ministry wants to achieve in fulfilling its mission. Advanced Education and Technology has identified strategies for 2009-12 that support the Ministry's outcomes and goals and the government's three-year business plan.

Performance measures gauge the degree of success the Ministry has in achieving its outcomes and goals. In assessing progress, targets are considered met if the result is within five per cent of the target value, and targets are considered exceeded if the result is more than five per cent above the target value.

Core Business One: Provide strategic leadership towards an integrated advanced learning and innovation system in Alberta

GOAL ONE **1** **Alberta's integrated advanced learning and research system is aligned with learner and labour-market demand and serves the needs of a knowledge-based society**

What it means

The following outcomes describe what attainment of goal one will achieve:

- An integrated and sustainable advanced learning and innovation system.
- The advanced learning system responds to learner needs and labour-market demand.
- Research capacity is aligned with the needs of a knowledge-based economy and society.

Strategies

- 1.1 Further Campus Alberta through the implementation of the Roles and Mandates Policy Framework for Alberta's advanced learning system and the development of a Campus Alberta governance framework.
- 1.2 Align resource allocation strategies to support the advanced learning and research and innovation system's ability to respond to emerging needs of learners and a knowledge-based economy.
- 1.3 Enhance the capacity and utilization of Alberta's public post-secondary infrastructure to support the sustainability of high-quality advanced learning and research opportunities throughout the province in collaboration with Alberta Infrastructure.
- 1.4 Develop an international strategy in support of the objectives of Campus Alberta and the Roles and Mandates Framework for provincially-funded research and innovation organizations.
- 1.5 Respond to demand for post-secondary system access through the priorities established in the Alberta Access Planning Framework.
- 1.6 Within the context of Campus Alberta, work with stakeholders and other ministries to develop a strategic approach to increase educational opportunities for Aboriginal learners.
- 1.7 Develop a collaborative, networked, and multidisciplinary research system that spurs innovation and addresses social, environmental and health challenges by working with partners and stakeholders to implement the Roles and Mandates Framework for provincially-funded research and innovation organizations.

Performance Measures	Last Actual 2007-08	Target 2009-10	Target 2010-11	Target 2011-12
1.a Public satisfaction that adult Albertans can access education or training	79%	80%	81%	81%
1.b Percentage of transfers where post-secondary graduates with prior learning had received the transfer credit they expected	87%	90%+	n/a	90%+

Performance Measures	Last Actual 2007-08	Target 2009-10	Target 2010-11	Target 2011-12
1.c Proportion of recent graduates who agree that the program they graduated from was worth the financial cost	84%	85%	n/a	86%

Note:

n/a Data available every other year.

Core Business Two: Develop highly skilled and qualified people by fostering a culture of learning

GOAL TWO

Alberta's advanced learning system fosters a culture of learning and meets the needs of Albertans, society and the next generation economy

What it means

The following outcomes describe what attainment of goal two will achieve:

- A globally recognized advanced learning system based on the vision of Campus Alberta.
- A broad array of quality learning opportunities is available within local communities.
- Albertans participate in the advanced learning system and complete their education or training.
- Affordability is not a barrier to participating in advanced learning opportunities.
- Excellence is rewarded through scholarships and awards.

Strategies

- 2.1 Profile Alberta's post-secondary and research system in key national and international markets.
- 2.2 Enhance the recognition of Alberta's credentials and graduates through the work of quality assurance mechanisms.
- 2.3 Work with community adult learning councils and community literacy programs to provide adults with financial literacy, math literacy and other literacy skills needed for the next generation economy.
- 2.4 Support comprehensive community institutions and community adult learning providers to increase their alignment and responsiveness to regional learning needs.
- 2.5 Develop innovative approaches to increase the participation of Aboriginal, immigrant and other under-represented groups in literacy and other learning opportunities.
- 2.6 Enhance parents' and learners' knowledge and awareness of Campus Alberta, planning and learner supports, and financial support options through a collaborative raising-awareness initiative.
- 2.7 Develop innovative approaches to improve participation and achievement in apprenticeship and industry training in response to industry needs.
- 2.8 Encourage industry participation and investment in the apprenticeship and industry training system in collaboration with the Alberta Apprenticeship and Industry Training Board, employers, and other stakeholders.
- 2.9 Collaborate with other ministries to develop Alberta's Human Capital Plan.

- 2.10 Work with institutions, employers and professional associations to encourage the recognition of credentials, competencies and prior learning.
- 2.11 In alignment with the Affordability Framework, continue to enhance student financial assistance and other related programs.
- 2.12 Enhance access to student financial assistance through simplified materials, technology, policies and support services, including working with pan-Canadian committees and working groups.
- 2.13 Ensure scholarship programs reward the excellence of Alberta students.

Performance Measure	Last Actual (year)	Target 2009-10	Target 2010-11	Target 2011-12
2.a International visa students registered at Alberta post-secondary institutions	9,598 (2006-07)	10,000	10,100	10,200
2.b Satisfaction of recent post-secondary graduates with the overall quality of their educational experience	91% (2007-08)	90%+	n/a	90%+
2.c Satisfaction of recent apprenticeship graduates with:				
• on-the-job training	93%	n/a	90%+	n/a
• technical training	94% (2006-07)	n/a	90%+	n/a
2.d Public agreement that programs, classes or courses are offered in locations (including online) that are easily accessible	76% (2007-08)	78%	79%	79%
2.e Proportion of Albertans aged 18-34 participating in post-secondary education	16% (2008)	17%	18%	19%
2.f High school to post-secondary transition rate of students within 10 years of entering Grade 10 ¹	67.5% (2006-07)	73%	75%	75%
2.g New apprentices registered (five year average)	17,804 (2007)	20,000	20,000	20,000
2.h Aboriginal learners participating at post-secondary institutions	7,680 (2007-08)	7,800	7,900	8,000
2.i Ratio of total debt at graduation to income two years after graduation	33% (2007-08)	33%	n/a	33%
2.j Scholarship dollars per full-time student studying in Alberta	\$302 (2006-07)	\$420	\$422	\$424

Notes:

1 Methodology for performance measure 2.f has been expanded from tracking students who transition from high school to the post-secondary system within 6 years of entering Grade 10 to within 10 years of entering Grade 10 to capture more students who delay entry into the advanced learning system. The 2006-07 data is based on the new methodology.

n/a Data available every other year.

Core Business Three: Support research and its application and commercialization to grow a more diverse Alberta economy and knowledge-based society

GOAL THREE **3** Alberta's research capacity supports excellence in research and innovation in strategic areas

What it means

The following outcome describes what attainment of goal three will achieve:

- Research and innovation excellence supports areas where Alberta has or is developing a competitive advantage.

Strategies

- 3.1 Promote life sciences technology and innovation to advance bio-economic, health and sustainable production opportunities that support the emergence of Alberta's next generation economy.
- 3.2 Develop Alberta as a world-class centre of energy research and promote advanced energy technology and innovation in six core areas: bitumen upgrading, clean carbon/coal, improved recovery, renewable energy, CO2 and emissions, and water use.
- 3.3 Implement the Information and Communications Technology Strategy and support an environment that fosters research and industry development in strategic areas.
- 3.4 Develop, attract, and retain highly qualified scientific personnel and entrepreneurs in Alberta.
- 3.5 Implement the *Alberta Nanotechnology Strategy* by supporting the enhancement of applications to drive Alberta's nanotechnology agenda.
- 3.6 Support research excellence at Alberta universities, colleges and technical institutes.

Performance Measures	Last Actual 2006-07	Target 2009-10	Target 2010-11	Target 2011-12
3 a Total sponsored research revenue attracted by Alberta universities ¹ (\$ million)	731.4	760.9	776.1	791.6
3 b Total sponsored applied research revenue attracted by Alberta technical institutes and colleges (\$ million)	5.8	5.8	5.8	5.8
3 c Graduate students studying in Alberta	18,605	19,100	19,350	19,600
3 d Percentage of graduate students studying in priority areas	32%	32%	32%	32%

Performance Measure Under Development:

A performance measure that tracks the number of research chairs, industry chairs and professors supported by government is under development.

Note:

¹ The 2006-07 last actual was revised due a change in the data source and methodology.

Value captured from research and innovation drives Alberta's future success in the next generation economy

What it means

The following outcome describes what attainment of goal four will achieve:

- A diversified economy through growth of knowledge-based sectors.

Strategies

- 4.1 Promote a culture of innovation within Alberta through support of programs and mechanisms required to encourage the translation of science and technology discoveries into business and entrepreneurial opportunities.
- 4.2 Implement initiatives from *Alberta's Action Plan: Bringing Technology to Market*, including the promotion of the development of an investment environment supporting technology industries, in part through the Alberta Enterprise Corporation.
- 4.3 Develop partnerships between communities, industry, and institutions to foster business opportunities; technology creation and transfer; and attraction of corporate investments which lead to greater technology commercialization in Alberta.
- 4.4 In alignment with government priorities, collaborate with various partners to accelerate diversification and commercialization in Alberta by enhancing the technology and business development environment.
- 4.5 Facilitate and encourage government departments and post-secondary institutions to be model adopters of Alberta research and innovation.

Performance Measure	Last Actual (year)	Target 2009-10	Target 2010-11	Target 2011-12
4.a Alberta business expenditures on research and development (\$ million)	1,077 (2005)	1,173	1,221	1,269
4.b Number of Albertans employed by companies in priority areas	140,100 (2008)	140,100	140,100	140,100
4.c Albertans employed by companies in priority areas as a percentage of Albertans employed in all companies	7.0% (2008)	7.3%	7.4%	7.5%
4.d Percentage of Canadian venture capital invested in Alberta	2.4% (2007)	3.0%	3.0%	3.0%

EXPENSE BY CORE BUSINESS

(thousands of dollars)

	Comparable					
	2007-08 Actual	2008-09 Budget	2008-09 Forecast	2009-10 Estimates	2010-11 Target	2011-12 Target
Provide strategic leadership towards an integrated advanced learning and innovation system in Alberta	2,792,766	2,940,315	2,953,235	2,690,313	2,743,704	2,565,461
Develop highly skilled and qualified people by fostering a culture of learning	204,461	252,594	240,463	244,326	247,261	247,910
Support research and its application and commercialization to grow a more diverse Alberta economy and knowledge-based society	237,359	234,906	253,936	213,733	213,958	213,728
MINISTRY EXPENSE	3,234,586	3,427,815	3,447,634	3,148,372	3,204,923	3,027,099

MINISTRY STATEMENT OF OPERATIONS

(thousands of dollars)

	Comparable					
	2007-08 Actual	2008-09 Budget	2008-09 Forecast	2009-10 Estimates	2010-11 Target	2011-12 Target
REVENUE						
Internal Government Transfers	175,635	186,723	183,769	192,800	192,870	194,578
Transfers from Government of Canada	378,540	512,017	544,159	525,520	550,425	571,915
Investment Income	11,372	13,550	8,840	8,400	11,250	14,800
Premiums, Fees and Licenses	7,707	9,160	10,260	10,560	10,760	10,960
Other Revenue	51,169	55,234	55,531	58,734	58,734	58,734
MINISTRY REVENUE	624,423	776,684	802,559	796,014	824,039	850,987
EXPENSE						
Program						
Support for Adult Learning	1,834,343	2,050,562	2,022,762	2,147,286	2,204,982	2,271,082
Support to Post-Secondary Learners	152,237	194,417	184,332	182,692	183,813	184,639
Post-Secondary Infrastructure	900,384	834,557	873,970	484,374	478,880	234,585
Apprenticeship Delivery	31,540	33,115	36,060	39,090	40,680	40,519
Alberta Centennial Education Savings Plan	13,219	17,500	11,200	12,500	12,500	12,500
Research and Innovation Capacity	121,241	84,584	98,756	70,963	65,663	61,663
Technology Commercialization	17,624	42,746	43,109	33,239	38,025	41,450
Ministry Support Services	22,152	22,682	26,607	30,128	30,800	30,660
Access to the Future Fund	50,574	47,633	47,633	48,608	49,573	49,573
Alberta Enterprise Corporation	-	-	-	1,000	1,425	1,750
Alberta Research Council Inc.	78,482	88,708	91,894	87,752	87,814	87,880
iCORE Inc.	12,547	11,306	11,306	10,735	10,763	10,763
Valuation Adjustments	243	5	5	5	5	5
MINISTRY EXPENSE	3,234,586	3,427,815	3,447,634	3,148,372	3,204,923	3,027,099
Gain (Loss) on Disposal and Write Down of Capital Assets	(572)	-	-	-	-	-
NET OPERATING RESULT	(2,610,735)	(2,651,131)	(2,645,075)	(2,352,358)	(2,380,884)	(2,176,112)

CONSOLIDATED NET OPERATING RESULT

(thousands of dollars)

	Comparable					
	2007-08 Actual	2008-09 Budget	2008-09 Forecast	2009-10 Estimates	2010-11 Target	2011-12 Target
Ministry Revenue	624,423	776,684	802,559	796,014	824,039	850,987
<i>Inter-ministry consolidation adjustments</i>	(178,239)	(188,723)	(187,169)	(196,800)	(196,870)	(198,578)
Consolidated Revenue	446,184	587,961	615,390	599,214	627,169	652,409
Ministry Expense	3,234,586	3,427,815	3,447,634	3,148,372	3,204,923	3,027,099
<i>Inter-ministry consolidation adjustments</i>	(3,329)	(2,800)	(4,200)	(4,800)	(4,800)	(4,800)
Consolidated Expense	3,231,257	3,425,015	3,443,434	3,143,572	3,200,123	3,022,299
Gain (Loss) on Disposal and Write Down of Capital Assets	(572)	-	-	-	-	-
CONSOLIDATED NET OPERATING RESULT	(2,785,645)	(2,837,054)	(2,828,044)	(2,544,358)	(2,572,954)	(2,369,890)

